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Project Leader	Dr Jan McArthur
Institution	University of Edinburgh
Partners	1. Dr Mark Huxham, School of Life Sciences, Edinburgh Napier University 2. Mrs Jenny Hounsell, Centre for Teaching, Learning and Assessment, University of Edinburgh
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Tipping out the Boot Grit: the use of on-going feedback devices to enhance feedback dialogue

Dr Jan McArthur, University of Edinburgh
Professor Mark Huxham, Edinburgh Napier University
Jenny Hounsell, University of Edinburgh
Clive Warsop, University of Edinburgh

1. Project Summary

This project is premised on a belief in the importance of understanding feedback as a dialogue between students and teachers. In addition it considers the importance of feedback as an ongoing and multi-faceted part of students' engagement with a course, rather than a singular process that occurs at only one point. On this basis the project looks in-depth at two different moments in the learning cycle where feedback can be encouraged in a more dialogical way. Insights into these feedback approaches, at these moments, can then be used to inform the development of other forms of dialogue through the learning cycle.

The first feedback example is situated in regular lectures – and we term this boot grit feedback. This is intended to provide an opportunity for dialogue between students and the lecturer about key concepts that remain unclear at the end of a lecture. Students are given the chance to ask confidentially for further information or clarification at the end of class, to which the lecturer responds promptly. The idea is to resolve misunderstandings or knowledge gaps that might not initially seem serious, but if left unresolved could "worry away" at the students' learning in negative way – like a bit of grit in a boot.

The second feedback example is situated in the context of a major piece of coursework. To try to inspire the notion of feedback as dialogue, students are given the opportunity to request feedback on particular aspects of their work when they submit it. Lecturers then pick up the dialogue with each student as they respond to their requests. Previous work in this area[1], by some of the same researchers, has

[1] Details available at http://www.bioscience.heacademy.ac.uk/funding/currentprojects/huxham10.aspx

indicated considerable resistance on the part of students to take up this offer. So this part of the project extended this work in a different context and in a slightly different way to consider what obstacles there may be to this form of dialogue, along with its potential benefits.

The results we have gained in this project have been rather surprising. In particular there is a sharp contrast between the apparent effectiveness of the two feedback examples. Boot grit feedback proved a very effective means to establish dialogue with students in the otherwise difficult area of large lectures. We found that students responded well to the idea, understood its purpose and engaged thoughtfully with it. We also found that it was a flexible tool and, as we outline in this report, can be adapted to suit slightly different purposes and contexts (though our findings suggest it remains most effective in large lecture situations where other forms of dialogue are difficult). In contrast, focused feedback does not appear well understood by students (and some academics) or regarded as useful. The project has produced results that mirror that of the previous work with miniscule levels of uptake where it was tried in two courses.

In the latter part of this report we suggest that these contrasting results can help to develop the idea of feedback as dialogue and suggests that they highlight issues of timeliness, levels of information and trust that influence the success of any such dialogue initiatives.

2. Project Aims

1) To further our understanding of feedback as dialogue throughout the learning cycle
2) To undertake a detailed exploration of two examples of 'dialogue devices' at different stages of the learning cycle: "boot grit" feedback during the early module stages and focused feedback prior to assessment.
3) To investigate some of the factors that affect student engagement with these dialogue moments.

3. Project Method

This project was undertaken under the auspices of ESCalate 'Developing Pedagogy and Practice' funding. Our project approach has been to, firstly, gain a better understanding of our practice in two areas and, secondly, to use this to help inform the practice of others and broader scholarship in this area.

Our enquiry method has therefore been largely an action research approach into particular aspects of feedback practice. This is most clear for the "boot grit" example where we have tried a number of different forms of boot grit and collected data from students and our own reflections on what has worked and possible explanations. We have therefore tried to extrapolate some illuminating data from this work to contribute to the scholarship of pedagogy and practice, particularly in the area of feedback. In keeping with its action research roots, this has not been a systematic enquiry and the results are in no way generalisable, but we do hope to make an illuminating contribution that can inform both scholarship and practice in this area.

The data have been analysed using both qualitative and quantitative methods. These include numerical analysis of requests for feedback in both examples, textual analysis of feedback requested and a small number of semi-structured interviews on the subject of focused feedback.

4. Feedback as Dialogue

It is some years now since higher education pedagogy shifted from an emphasis on individual cognition to a much wider acceptance of the social nature of learning (eg. Brown, Collins, & Duguid, 1989; Lave & Wenger, 1991; Northedge & McArthur, 2009; Parker, 2002; Quinn, 2010; Wenger, 1998). There is great variety and debate within this social learning literature, however a common thread is the importance of dialogue to the social act of learning. This dialogue can take many forms including a discussion between individuals, a reader's active engagement with a written text, a listener's responses to a lecture or the exchange of notations and comments on a written document. Our capacity to do this rests on what Bruner (1996) describes as 'our astonishingly well developed talent for "intersubjectivity"— the human ability to understand the minds of others' (p. 20). Key to this is that sharing meaning is not just about a transfer of information, but about an exchange and a process of back-and-

forth as meaning is negotiated, clarified and constructed. To achieve this we also suggest the importance of Habermas's (1989, 1991) concept of an ideal speech situation in which communication takes place free of distortions.

We suggest that the relationship between feedback and dialogue is both obvious and immensely under-fulfilled. Despite the increased understanding of the social nature of learning - the importance of dynamic exchange - feedback is often something that students simply "receive" or which is even "done to them". This is an understanding of feedback as the words on the page, or even the words on an audio or video tape, or face to face discussion: in all these cases we argue that the emphasis still needs to move from these words of feedback on to how students interact with them. This, we suggest, is the essence of a dialogic relationship.

Taras (2003) also argues that feedback is 'not a freestanding piece of information, but that it forms part of a learning context where all the protagonists need to be engaged in the process' (p. 550). Similarly, feedback is regarded as a form of 'communication' essential to the greater learning process (Poulos & Mahony, 2008). However, we want to emphasise that there are many different forms of communicative relationships and many factors that can affect the nature and efficacy of these. Indeed in a study over ten years ago Higgins *et al* (2001) drew attention to a general, albeit implicit, over simplification of feedback as a model of communication. As they argued, communication can imply a fairly linear process of transfer. As such, we argue it is of little educational value. Rather than considering feedback as 'a simple, straightforward phenomenon' we need to acknowledge that it is 'complex' and 'multi-dimensional' (Poulos & Mahony, 2008, p. 145).

This is why we are interested in stressing the dialogical nature of feedback. The concept of dialogue makes clearer the type of communication involved and the roles of students and lecturers. However, we also distinguish our approach from the troubling benignity of some learning communities and communities of practice literature (eg. Wenger, 1998) where there is a lack of attention to possible distortions and the role of power in student-teacher relationships (McArthur, 2010). More useful, we suggest, is Trowler's (2005, 2008, 2009) analysis of learning and teaching regimes which brings together the hidden, implicit, informal and unacknowledged practices

that can also influence what happens in a teaching and learning situation.

This perspective is useful, we argue, for understanding the ways in which much feedback often falls well short of an actual dialogue. In particular, there are many ways in which students may refuse to take part in a dialogue or feel unable to do so. They, and lecturers, may also be simply unaware of the possibility, trapped in roles where they play out traditional learning and teaching relationships.

Some students refuse to take part in a feedback dialogue by simply failing to collect their feedback (Duncan, 2007). Or perhaps, they are choosing to tell their lecturers something uncomfortable by that very refusal? We may not be able to know the answer to this. However, it is clearly an unhealthy relationship where lecturers continue to mark assignments, repeating advice over and over, with scant sense that students ever see them, let alone use them.

Even when they physically collect the feedback, students can refuse to take part in a dialogue by apparently not engaging with what has been said. However, we are not suggesting that the fault necessarily lies with students. There are many good reasons why they may not act upon feedback, including the fact that they might judge the feedback to be of poor quality and low helpfulness. Further, students are less likely to respond to feedback when they question the credibility of the lecturer (Poulos & Mahony, 2008).

As a study by Crisp (2007) suggests, the impact of feedback on students' work is often negligible or hard to detect. However, as she further argues, this is likely to be down to insufficient thought on the part of the provider of feedback as to its role and usefulness, rather than student intransigence in response to comments made.

Moreover, Crisp argues that assumptions that feedback should lead to improvement in future pieces of work 'can become ingrained in the organizational culture of higher education institutions' (p. 571-72), and lead then to implicit feelings of resentment on the part of academics when the provision of feedback adds more pressure to already over-burdened workloads. We suggest this is exacerbated by the growing audit culture in higher education (Shore & Wright, 2000; Strathern, 2000). In such an

environment the provision of feedback may be justified in terms of meeting particular quality agendas or organizational targets, rather than for clear and straightforward educational reasons. This is reinforced in a study by Orsmond *et al* (2005) that suggested that university standardization of procedures, such as the use of standard feedback sheets often went against student preferences for other forms of feedback (such as margin comments).

It is also difficult to establish a dialogical relationship if students and lecturers have different expectations of the roles and uses of feedback. Students may appear to ignore feedback when they are simply working from a different understanding of its purposes (Orsmond et al., 2005). Work by Carless (2006) suggests recurring evidence that students and staff have different perspectives on the assessment and feedback process.

Even now, there is unfulfilled scope for more research on students' perceptions of feedback (Poulos & Mahony, 2008). Similarly, while there has been significant work on student involvement in assessment, it is often in terms of groupwork or peer assessment (Carless, 2009). In this project we consider student involvement in terms of the relationship with the lecturer – the dialogue between them. As such it is impossible to ignore factors such as 'discourse, power and emotion' (Carless, 2006, p. 220) in the feedback process.

We return to these issues in the final section of this report as, we suggest, they help to illuminate the different experiences we had trying the two moments of dialogue – boot grit and focused feedback. Before that, we outline the results from our work on these two examples.

5. Two moments for dialogue?: boot grit and focused feedback

Boot grit Feedback

The idea of boot grit feedback serves three important purposes in the context of

feedback as dialogue. Firstly, it is relatively immediate, dealing with problems and questions that might be small, but if left unresolved could have major impacts on students' learning and performance; like a bit of grit left in a boot that can eventually cause pain and problems. Secondly, it enables dialogue in situations that traditionally seem unlikely places for such exchanges – that is, large lecture classes. Thirdly it liberates feedback from its commonly assumed link with formal assessment; this is feedback on learning as it happens in the 'everyday' setting of a lecture rather than as demonstrated in assessment. As such the practice emphasizes the on-going dialogical nature of good feedback. Our aim with boot grit feedback was to go beyond what can be done using electronic forms of in-lecture feedback, such as clickers (France and Wheeler, 2007; Merry and Orsmond, 2007) by developing a more open-ended forum for exchange.

Our initial trials with boot grit feedback were very low tech – literally featuring a boot in which pieces of paper were placed by students. We then trialed a more high tech version using text walls (where student-sent text messages appear immediately on the lecture screen during the lecture). In our discussion we report on the relative strengths and limitations of both methods.

The rest of this section is divided into a series of examples that aim to discuss different approaches to boot grit feedback. The first example is therefore a more general summary of the basic idea and our experience using it. The subsequent examples are then variations on the theme – picking up different issues or applications.

Example 1: Bringing an old boot to the lecture

Our first attempts to introduce boot grit feedback to lectures were approached in a fairly literal way: an old boot brought in and the concept explained to students. This little "prop" served to amuse and interest the students and, we suggest, helped to ease the introduction of something new and unfamiliar to the lectures. In subsequent modules a sheet was also included in the module handbook featuring a series of little boot images – which students could tear out and use in each lecture. Not all students used this, some preferred to just write on whatever was to hand and some probably

didn't carry the module handbook around with them. However, it was still a useful way of integrating the idea of boot grit into the students' experiences of the course. We believed it reinforced the idea of establishing on-going dialogues rather than just a one-off novelty. Students submitted their anonymous pieces of boot grit paper into a 'boot grit box' at the end of each lecture.

We analysed 216 individual boot grit feedback requests collected from 2 courses. These were mainly in paper form, but we have included those from the use of textwall (explained further in example 2). We did not include other variations on the general "boot grit" style – some as general feedback outlined in example 4 and feedback on a specific initiative outlined in example 5: these other examples were analysed separately as the nature of the questions and the purposes of the boot grit mechanism, differed slightly from those in examples one and two.

Of these 216 requests 90% asked very specific, focused, topic-related questions. This demonstrates a high level of student understanding of the purposes of the boot grit feedback in lectures. There were only 5 comments that might be considered unrelated to the lecture – and these all arose during use of the textwall (we discuss this further below in example 2). A further 5 questions related specifically to assessment and all arose in the one lecture when the first assessment was looming. Five comments were positive feedback to the lecturer. Five were negative comments on the behaviour of other students, particularly disruptive talking and late arrivals. Two comments related to trouble keeping up with note-taking during the lectures.

The students appear to have understood the concept of boot grit very well (it was rarely confused with more general feedback) and used it effectively. The requests submitted typically featured just one word – a concept that they hadn't grasped – or a simple sentence or question. Table 1 below features a selection of students' boot grit requests to give a flavour of the way they phrased these.

Table 1: Examples of boot grit questions

Half life calculation thing? Very	*Fixation thing*	*Disruptive selection – how it works*

confusing! Sickle cell anemia	*Clines (explain more) please!*	*Can parasites themselves become hosts to other parasites?*
Ecological species concept	*Horizontal gene transfer – had problem understanding this idea*	*I don't get group selection*
Convergent evolution	*The inter-genome idea. Can you define that for me?*	*Why do asexual species likely to extinct so fast?*
What is the r (coefficient of relatedness) between two half brothers?	*Allopatric speciation*	*Definition of the cline; testing genuine cline*

Example 2: Our boot goes high tech – text walling in lectures

We thought it would be interesting to take the general principle of boot grit and try to use it along with new technology such as text walls within lectures. Text walls enable students to text a comment from their mobile phones to a number provided by the lecturer (but not his or her personal number). These comments then appear on a website, which can be projected in real time on the screen at the front of the lecture theatre or accessed in private later on by the lecturer. All comments are anonymous. Unlike the use of clickers, text walling allows for open-ended questions and answers and a more genuinely dialogical form of interaction.

We only used the text walls for certain "windows" within the lecture – generally about five minutes. Our experience suggests that having the text wall open for too long can have diminishing effectiveness, as it starts to become a distraction and can lead the lecture off course. We found that the text wall makes it easier to open that window for dialogue at different times in the lecture, compared with the boot and paper version which works best at the very end. In addition, questions asked on the

text wall can be answered immediately in the lecture, which allows for a different form of feedback than the other method. So the text wall was used to collect immediate impressions on questions asked during lectures, to collect electronic boot grit towards the end of a lecture which was then answered immediately and also to collect boot grit comments texted after the lecture had finished, which were responded to using the Virtual Learning Environment in the same way as paper boot grit.

The projected text wall has an immediacy that can be very useful, while the boot and paper method allows the lecturer to think about the students' boot grit before forming a response. We suggest both methods are therefore useful and individual lecturers are likely to find it helpful to play around with both methods in different contexts, as we have done, to see what works best in the context of their own courses.

The type of boot grit feedback requested on the text wall was largely the same as using the other method, with one notable difference: there were more non-lecture related comments. We suggest that this may be partly due to the familiarity that students have with texting – it is a format in which they are comfortable and used to expressing themselves quite freely and informally. Comments in this category included:

The person next to me wants a fag
[I don't like] not being able to eat in lecture halls
Happy birthday clare!! Shes 18 today!! :-D
My girlfriend is pregnant – what do I do?

Sometimes these apparently irrelevant comments can be linked back to the subject matter by the lecturer's response. For example

Question: the person next to me wants a fag
Answer: is that UK or American? Smoking is probably a selective agent on the current human population, although you might want to ask why the desire to smoke has not been 'selected out' by the strong mortality it imposes.

Or even when there is no subject relevance:

Question: not being able to eat in lecture halls
Answer: sorry – but should help you stay awake...

Our observations suggest that even these apparently irrelevant comments can be used to maintain a sense of dialogue; after all the essence of genuine dialogue is spontaneity and risk. Hence using this method and responding with respect (although perhaps with levity too) to comments that may be humorous or irrelevant helps develop an atmosphere of playful trust. However, there are also obvious pitfalls – such as when comments get very personal – for example, *My girlfriend is pregnant – what do I do?*

We also found, in an ecology lecture for example, that some comments can seem appropriate and subject-related, however, it may also be that there is a little mischief or humour at work:

I like tits too

What if a guy had sperm with 5 tails or 3 heads

The challenge for the lecturer here is to keep the dialogue open and to try not to be too directive, without letting it run away into chaos. However, peers can have a role to play here too as the text wall allows them to admonish students who start to get silly and/or to encourage more useful questions.

Example 3: Tipping out the grit after the first Lecture

We found that it was particularly important to introduce boot grit right from the first lecture. Early use and engagement with boot grit helps to establish this form of dialogue as a natural part of the course. In addition, our work suggests that students respond well to the apparent novelty of being asked to provide this feedback, and the promise of prompt replies. Certainly, there are a lot of questions asked at the end of the first lecture, the first opportunity given, compared with later lectures.

Table 2 summarises the types of feedback requested in the first lecture of a large (~110 students) first year module on ecology and evolution.

Table 2: Boot grit requests at end of first lecture

Boot grit requested	Number of requests
Scientific hypotheses – the difference between a scientific and non-scientific hypothesis	26 questions
Adaptation – reinforcing the definition	4 questions
Fitness, Paley, Lamarck, natural selection	(1 or 2 of each)
Lecture technique and behaviour	4

Questions in the last category can be particularly useful at the start of a course, helping to establish the norms of course behaviour in partnership with students, rather than as top down pronouncements. Here, for example, the issue of poor lecture behaviour was raised by students, which gave the lecturer a different form of authority in asking students to modify their disruptive behaviour. Part of his response to this boot grit was as follows:

> *Two people mentioned the disturbance caused by other students arriving late. Please be on time if you can and try to minimise any disturbance by entering carefully. Because the lecture theatre is crowded it would help if you could sit at the ends of the rows of seats if you arrive early, leaving easily accessible seats for late-comers.*

Several studies have already observed the importance of feedback in the first year of a course as students try to navigate the new and unfamiliar aspects of learning in higher education (Poulos & Mahony, 2008). We suggest that the same is true in the micro context of the first lecture of a new course – which has not traditionally been a place in which feedback of any sort features very highly. In a modularized system students may face a number of complex learning contexts as they move between subjects (Higgins, Hartley, & Skelton, 2002). Hence we suggest the early use of boot grit feedback can help students adjust to possibly unfamiliar contexts, norms and expectations – they are liberated to ask 'silly' or 'small' questions in confidence: these are the very sort of questions that can help students establish a solid foundation for learning in the course.

Unlike generic feedback or study skills advice, this boot grit feedback is highly focused and thus has a strong sense of relevance to a particular subject. Indeed Higgins *et al* (2002) identity 'relevance' as one of the chief problems in ineffective feedback, noting that when students study a diverse range of modules, sometimes fairly short, generic advice has only limited usefulness in each of these different contexts.

Example 4: Clearing out the Lecturer's Boot Grit

In this example we report on using boot grit as a mechanism to elicit some immediate and "natural" feedback on how students were experiencing the module in more general terms. We hoped that the absence of a "standard" module evaluation form would allow students to just say what they feel – with no leading questions or bureaucratic overtones (repeatedly filling in the same evaluation forms course after course can diminish their usefulness. In addition, this feedback was requested early in the module (lecture 4) – and students were specifically asked to suggest general changes and/or what they were finding useful so far. This is important for the concept of dialogue, as a direct response to all the issues raised was made in the next lecture session, showing that student feedback is respected and listened to and opening up opportunities for on-going discussion with students over the rest of the module. This feedback is essentially boot grit for the lecturer – various things that could cause problems if left unaddressed.

Student response to this option was high. Sixty-five students submitted feedback at the end of this lecture out of a course of 109 students. Students were asked for feedback on things they liked about the lectures and things they didn't like and wanted to stop or change. Table 3 outlines the broad categories into which the positive feedback fell, while Table 4 outlines the aspects students were unhappy about.

Table 3: Lecturer's boot grit – positive feedback

	No. responses	% responses

Topic/content	11	12
Interactive/participative nature	19	20
Lecture style - general	38	40
Enthusiasm and manner of lecturer	13	14
Pace of lecture	3	3
Examples	10	11
	N = 94	100

Table 4: Lecturer's boot grit - suggestions for change

	No. responses	**% responses**
More interactivity	4	11
Some students too dominant/less interactivity	7	20
Maths	7	20
Pace/chance to take down notes	7	20
Lecture room - eg airconditing	3	9
Self - need to do more work	2	6
Revision class	1	3
Explanations unhelpful	3	9
More bonus questions/extra work	1	3
	N = 35	100

This feedback can be extremely helpful for the lecturer in many ways. In terms of this project it offers a particular insight into one of the challenges of trying to encourage dialogue within large teaching situations; and this is that different students will experience the "dialogue" differently. A dialogical situation in a large lecture can never entirely reproduce that between two people or a small group. As the above results show, while 19 students mentioned that they particularly liked the interactive nature of the lectures, a further four said they wanted more interactivity. A further seven students made quite strong comments about the ways in which the interactive moments were dominated by certain students. These included:

The same people are always speaking, which I feel holds other people back

The same people answering the questions ☹

Same people answering questions – no other people chance.

This is itself an important issue, although it is beyond the specific focus of this project. However, we do suggest that it reinforces one of the benefits of boot grit as a dialogical device as it offers more equal chances to ask questions for students who may possess more or less confidence asking things in front of their peers or in large groups. Boot grit goes some way to allowing all students to ask questions and communicate directly with the lecturer.

Example 5: getting feedback on a particular initiative

Although the basic concept of boot grit is to keep it as open as possible, encouraging students to identify any issues of concern, the boot grit idea can be easily adapted to seek student views on particular topics and new initiatives throughout a module. Once students are familiar with providing regular boot grit then asking for any additional comments on specific topics is much easier than launching a bespoke evaluation; the culture of open and genuine dialogue means students are not cynical about providing evaluative comments. For example an additional question was added to the usual boot grit to get feedback from students on a novel peer marking exercise introduced to help students understand the assessment process better. We think this fits in to the idea of boot grit because if the exercise has failed to achieve its objectives it is important that the lecturer knows in time to rectify any problems.

At the end of a lecture students were asked to submit any boot grit, as normal, but in addition to say what they thought of the peer marking exercise. Sixteen students out of a course of 93 gave feedback on the initiative. This was very positive and typical comments included:

> *I thought the peer marking was a good way to learn, in this case from the other person. It also made me revise my answers and how I came to them.*
>
> *Was useful. Helped to understand the work and the different answers could be written*
>
> *Peer marking exercise very useful. Gave me more understanding to the answers I didn't really get*
>
> *However it was a bit confusing, I think it was useful. Through this exercise I could realise if I understand the topics or not.*

Interesting to see other people said and what they answers were.

This feedback provides more to the lecturer than simply confirmation that the exercise was a good idea and appreciated by students. It can also help highlight any mismatches between her/his expectations and the reasons for students liking the exercise.

Example 6: incorporating boot grit into fieldwork research diaries

This example was situated in a week-long residential field trip for a third year ecology module. All students were already required to keep a reflective diary containing results and observations from the week.

In addition, we then asked them to add boot grit data each day – the small issues and problems that might need clarifying. We found a marked difference in the nature and usefulness of the boot grit feedback in this context.

Writing in their research diaries students appear to have addressed the feedback more to themselves rather than a lecturer, and as such the feedback tends to be more general and personal. It is apparent, however, that the nature of concerns changes over the week depending on the tasks involved. Examples include:

Table 5: Boot grit feedback examples from fieldwork diaries

Day 1	*I hate statistics* *I don't like the thought of being asked questions* *I cant answer* *I am struggling with the stats* *I find it difficult to interact with a large group* *Finding out I needed to do stats made me uneasy* *I'm not good at calculating volumes* *I'm frustrated with my lack of taxonomy skills* *I'm completely confused with statistics – no idea what to do*
Day 2	*Its difficult to identify birds in flight* *Avoiding people who might ask me questions*

	(is a weakness of mine) *I need to be quicker in bird ID* *I hate 'group role' banter*
Day 3	*It is difficult to identify insects in tubs* *Wilcoxon test [statistics] is confusing* *I got the Wilcoxon test wrong*
Day 4	*I am inexperienced at field work* *I'm nervous about the presentation*
Day 5	*Really nervous about doing the presentation* *Not knowing what to do with the data [is a problem for me]* *I wouldn't want to see myself talking as it would just make me nervous [in response to idea of videoing presentations]* *I am wary of doing a presentation..*

These observations may well have been useful for students to make, but in our view they are not boot grit questions – rather they mostly represent reflective comments on anxieties and challenges. We suggest this is not a useful context in which to attempt boot grit feedback for two reasons. Firstly, these are small student numbers and there are multiple opportunities to talk with academics outside formal classes on such residential trips – *so the need for boot grit feedback is diminished*. Secondly, the research diaries are not submitted until the end of the week – *so the useful timeliness of boot grit feedback is diminished*.

Example 7: Thought Stones – boot grit's positive sibling

This project has been particularly interested in the dialogical nature of learning and feedback in the context of student-teacher relationships. However we argue that learning is much more broadly dialogical in terms of students engaging in a dialogue with the subject itself. This is again resonant of Bruner's (1996) idea of our capacity to develop states of intersubjectivity with the work and ideas of others. Thus interactivity or dialogue in lectures needs to be just a stage, or moment, in students having an ongoing dialogue with the subject they are studying.

To this end the tangential idea of "thought stones" was introduced alongside boot grit

feedback. As outlined in example one, we even included a page of thought stone icons in the module handbook for students to use. Thought stones are intended to be the little treasures, surprises or intriguing things from the lecture: like pebbles collected from a beach they remind you of the experience every time you feel them in your pocket. We hope that they keep the dialogue going in students' minds.

We have not specifically collected data on the use of thought stones – as these are intended for students' own uses. However, on reflection the idea of having sheets of paper with both boot grit and thought stone icons did not appear to work, and seems to have confused some students (with a small number of thought stones being handed in instead of boot grit). We do suggest that this is a dialogical device worth developing and considering further.

Summary Discussion – Boot Grit Feedback

We have found that the idea of boot grit feedback encourages greater dialogue between students and lecturers, particularly in large lectures. However, as can be seen in example six, boot grit feedback lacks effectiveness in situations in which other forms of dialogue are easy, and arguably more natural.

Boot grit is certainly not the only way of trying to establish a dialogue in large lectures. At its best it is probably most effective as part of a complementary suite of initiatives and a general commitment to a dialogical approach to teaching. The various techniques to stimulate dialogue, such as boot grit, are unlikely to be effective disarticulated from a broader commitment to learning as a dialogical relationship. In the modules discussed in this section other forms of interactivity and participative involvement also featured in lectures and the general teaching approach.

Our research suggests that there are particular contributions that boot grit feedback can make. Boot grit feedback encourages dialogue with those students (probably the majority in first year) who may not feel comfortable contributing in the "bear pit" of a large lecture class. Boot grit can also recognises the *right to reticence* (Chanock, 2010) of different students with diverse backgrounds and learning styles. As one student commented (as part of feedback in example 4):

Boot grit is a great idea since many students (including me) are not too confident in opening their mouth during lectures.

Recent work on another project by one of the report authors has also looked at the barriers that may prevent students asking for help (McArthur & McCune, Forthcoming). This can include embarrassment and an inability to easily phrase a question about something that one does not understand. Here again boot grit can provide another means of overcoming this. The boot grit metaphor is designed to emphasise the importance and relevance of small issues and problems – it is all about grit not large stones – so that students are comfortable in communicating any problems even if they feel they might be alone in experiencing them or that they are really too small to 'bother' a lecturer with. In this way the concept of boot grit differs to that of threshold concepts (Meyer & Land, 2003, 2005).

The sharing of answers and letting students see that their peers have also found a certain concept or a particular explanation confusing can also boost student confidence, taking away the sense that everyone else understands except them.

We suggest that both low-tech, paper-based versions of boot grit and the text wall alternative offer effective means of engaging students in dialogue within large lectures. Text walling appeared to elicit some more "familiar" comments, suggesting it is a medium students feel very comfortable with. Decisions as to which medium to use may be a matter of personal preference, along with available resources. In addition, the level, course stage or topic area could influence which medium is better suited to different circumstances. Text walls are good for questions that can be answered simply and directly, for example, correcting misunderstandings that may have arisen during the lecture. However, to answer some questions (or to explain the same topic in a new way) may sometimes not be best suited to on-the-spot answers. Of course, there is scope to mix and match these approaches.

We did not find that providing boot grit feedback added an extra burden to the lecturer's workload. Even in lecture one, when a large number of students asked questions (example 3) this did not impose a great burden on the lecturer as the vast

majority of these focused on the same basic issue (scientific versus non scientific hypothesis). We also suggest this was time well spent to introduce students to the idea of boot grit feedback and to the general, interactive and dialogical approach of the course. Over subsequent lectures there were roughly between 4-10 requests for boot grit each lecture (apart from special requests, as in example 5). Again, the lecturer did not find this added an unreasonable burden to his workload. This was particularly so because the students had grasped the idea of boot grit very well – focused questions on specific concepts. We strongly suggest that time spent on boot grit feedback balances positively with the time saved later in the course correcting misunderstandings which by that time may have "festered" and caused damage to the students' course experiences.

We have been pleased to observe that "boot grit" has become part of the vocabulary of students within this School. Other lecturers report students asking for boot grit feedback and the practice has indeed been taken up by some colleagues.

Focused Feedback

Our second example of trying to encourage feedback as dialogue takes place when students submit coursework for assessment. Using the idea of *focused feedback* we have tried to initiate a feedback dialogue with students by asking them to suggest areas where they would like particular feedback when they submit a piece of coursework. The dialogue should then be picked up and developed in the way the lecturer responds to this request. Ideally, we had hoped this would then lay the basis for more active student engagement with the feedback, and possibly ongoing dialogue as well.

In stark comparison to our boot grit initiative students have shown little interest in taking up the focused feedback option. At first we found this quite disappointing, however, we now believe that the lack of engagement with focused feedback can provide useful insight into what is required to make feedback as dialogue work.

This part of the project builds on previous work (funded through the HEA Biosciences subject centre) at Edinburgh Napier University. In that study we looked at a cohort of 710 students across 13 courses. Of these only 42 asked for focused feedback, and of those 31 all came from the one course: which anecdotal evidence suggested was a course about which students had expressed some dissatisfaction. Moreover, students appeared very aware of the focused feedback option, with 73% of students who were interviewed stating they had noticed the option. Similarly, 73% said it was a good idea, though not necessarily for them. Requests for focused feedback in these samples also tended to be at the procedural level, such as how to do citations and so forth.

On the basis of this project, we speculated about the reasons why students appeared not to engage with the focused feedback option. These included: not enough time when finishing their coursework, a sense that feedback would be provided anyway, mistrust of why the option was there and a sense that they were doing OK and did not need any particular guidance. These results were both surprising and a little disappointing. We had thought that focused feedback could be an effective, and relatively easy and straightforward, device for encouraging dialogue.

In light of these findings, and our commitment to the idea of feedback as dialogue, we were keen to try the idea in a different institutional context. This time at an ancient, research-intensive university, in which students' backgrounds and aspirations might be quite different. Having come to terms with the initial surprise and disappointment of the earlier project we felt it was particularly important that we explicitly guarded against "deficit" interpretations of why students did or did not engage with focused feedback; that is, that we should not assume, as could easily be done, that students had simply not understood our good idea. Thinking genuinely about feedback as dialogue challenges these sort of interpretations and remind us of the easy trap of blaming students for not responding to feedback as we anticipated (Crisp, 2007).

Focused Feedback at the University of Edinburgh

We decided it was important to stay in the same disciplinary area (to avoid further complicating factors) even though we anticipated that emerging issues would be

illuminating for other higher education fields of study. We have tried the focused feedback option in two biological science courses, including a large first year course of over 400 students and a third year course with 60 students. Thus our Edinburgh 'ancient' cohort for focused feedback was approximately 460 in total. If we add this to the data collected in the previous project, we have now offered the focused feedback option to a total cohort of 1,370 students. Table 6 outlines the take up rates for the two courses that formed part of this project, and the previous project at Edinburgh Napier University, the 'new' university.

Table 6: Take up of focused feedback option

	No of students	Requests for focused feedback	% take up of focused feedback option
University of Edinburgh Course 1	400	5	1.25 %
University of Edinburgh Course 2	60	3	5.00%
University of Edinburgh TOTAL	460	8	1.73%
Edinburgh Napier University TOTAL	710	42	6.00 %
TOTAL both institutions	1370	50	3.65%

The questions asked in Course 1 (first year) are included below – with additional notation of whether or not an answer was given and the students' overall grade:

The parts of the protein that determine its location within a cell. I am still not completely sure how this works. (direct answer) 70%

Were the introduction and conclusion long enough? Did I put enough information in them or should I have expanded them more? (no answer) 70%

How to improve the structure and style (direct answer) 59%

Is it enough like a scientific paper (brief answer) 46%

How to improve the structure and style of this essay (incorporated into general feedback) 69%

In addition, two students included the optional focused feedback page, but did not ask for any feedback – so these inclusions appear to be mistakes.

There were only three requests for focused feedback in the third year module,

however, we were pleased to see that these dealt with substantial issues, rather than simply procedure. All of these questions could provide the basis for a feedback dialogue between student and teacher:

Request 1
1) I was wondering if you could give me feedback on whether or not the flow of the essay is defined well enough?
2) If you could give me any information on whether or not I have given enough detail on the experimental procedures, as I limited as much information as possible due to, "your markers are experienced researchers" being quoted within the essay guidelines?
3) Also, I only gave one main hypothesis due to the cell line showing the main sign of tumour activity and statistical studies have shown the protein mentioned to be the main reason behind cancer inducement, but would it have been better to have shortened this down and hypothesised other reasons and given experiments to determine the gene/protein and molecular mechanism for these hypotheses?
4) Finally, I'd really like feedback on whether or not the experiments I have mentioned can actually be applied as I have tried to "use them" outside their normal use?

Request 2
I would be grateful if you could provide me with feedback re my essay writing style. Also, any techniques you could suggest for improvement in essay writing would be gratefully appreciated. Are there any parts which are ok in particular and parts that need improving? Thanks

Request 3
I've never had to construct my own experiments, so feedback on that would be great. Also my use of English (fluency) usually lowers my grade.

While clearly small in number, these focused feedback requests re-ignited our sense that this could sometimes be a useful dialogical device. However, they also pointed to additional problems we had not encountered before. Despite these students appearing to clearly understand the concept of focused feedback we were surprised to find that not all markers shared this understanding. Two of the above requests led to replies along the lines of "you should not ask this sort of thing" and the other request was not answered (at least not directly, it is not possible to gauge whether it influenced the other feedback provided).

This highlights two issues with focused feedback. Firstly, we underestimated the

possible misunderstandings between multiple markers, particularly when we liaised directly only with one of the marking team. Secondly, focused feedback needs greater integration into the general approach to teaching a course. We believe this is one reason why boot grit feedback has proven so much more successful.

Students' Attitudes to Focused Feedback

We conducted six semi-structured interviews with students from the first year course to ask their views on the idea of focused feedback and why they had or had not used it when submitting their coursework. We had initially intended to conduct 10 interviews, however, we soon felt that these were not revealing any significant new insights, particularly in light of the data already collected in the previous project.

None of the students we interviewed used the focused feedback option. Most had been made aware of it during lectures, but had forgotten or were otherwise distracted when it came time to submit their work. Four thought it would be a useful option for "other" students but not for them. Two students said they wished they had used it, however, in further discussion it became clear they had not really understood the nature of the focused feedback option. Comments included:

> *It didn't really occur to me to ask for anything in particular…I think I assumed I'd get some sort of written form of feedback that I could work on myself (Student 5)*

> *I read it but I don't think I actually knew what it meant, so I didn't choose it. (Student 6)*

> *I didn't actually notice it, I'd forgotten about it when I submitted it. (Student 4).*

Students suggested that at the time of submitting their coursework they simply had other things on their minds than thinking ahead to the feedback they might get. Submission is often a stressful and busy time. There is already literature about timeliness of feedback in terms of its impact (eg. Poulos & Mahony, 2008) but our point is somewhat different and considers the timeliness of the engagement in dialogue:

getting the assignment in was just a bit of a panic…asking for feedback was kind of like the last thing on my mind (Student 5).

the stress of just like getting it in and handing it in on time just over-run oh I must ask about this or that…so it just slipped my mind (Student 3)

In addition, several students argued that the moment between completing an assignment and it being marked is unlikely to be a useful time for such a request, except in very specific or unusual circumstances:

if you are already finished with the subject, on the essay, then it is kind of weird asking for more details at that point (Student 2)

yeah it is a good thing if you have a hard time explaining the structure of your essay, if it is like a bit out of the ordinary…but I think the fact that people don't ask for it…most people just contact whoever is marking the essay while they are writing it (Student 2)

I feel that if you had the problem at the beginning then you would have tried to sort it out (Student 4)

I think it might be more important in one way after you've got the results as well. Because you might have thought you'd done well in one part but when you got the results back you've not actually done so well as you thought. So that might be useful to ask then. (Student 3)

if someone felt that they were weak in a particular area…then perhaps they could get feedback specifically for that…however, if it is for something contributing a major part of your course then personally I think you should have sought feedback earlier than that…I personally wouldn't use it because I would go and speak with a tutor or a lecturer and say can you show me, am I doing this right (Student 4).

Our intention had been to provide an open and undirected forum for students to begin to engage in dialogue with their marker. We now see that this was possibly too vague and unspecific and may not have sufficiently considered the assessment situation from the perspective of the student. As demonstrated by the boot grit example, for focused feedback to work it would need to be integrated into the way the course is taught, so that students have prior experience thinking about and expressing the feedback that might be most useful for them.

One student commented that it was very difficult, as a student, to know what to ask at the time of submission. She suggested that some greater structure, such as tick boxes indicating areas of feedback (introduction, conclusion, research, argument etc) might be helpful. In addition, she felt that students would be in a better position to engage in thoughtful dialogue after they had received the marker's feedback: this point was echoed by most interviewees.

> *rather than questions maybe if it was just a tick box, like more feedback on the introduction or a certain question, rather than like thinking of I have to write a whole spiel about what I want more feedback on (Student 3).*

Another idea would be to ask students to use the feedback they had previously received to identify any particular issues for focused feedback. This would make use of the idea of feedforward and the formative use of feedback from previous summative assignments (Duncan, 2007).

Another barrier to uptake of the focused feedback option appeared to be the unfamiliarity of the concept. We would argue that "unfamiliarity" need not stop any educational initiative being useful. However, in combination with the above two points such unfamiliarity can reduce the effectiveness of such a tool. Students are likely to be less able to grapple with an unfamiliar initiative when they are busy, even stressed, meeting assessment deadlines. Similarly, students would appear to need more information about the purposes of focused feedback if they are to actively engage with this unfamiliar format.

Even when students did take up the focused feedback option the requests were generally quite procedural (with the exception of the third year Edinburgh course) and did not really lay the basis for the type of dialogue envisaged. A similar problem is discussed by Norton (2004) in the context of engaging students with assessment criteria. She argues that there is a danger of such initiatives being self-defeating if the nature of the engagement, or dialogue, is allowed to be overly procedural, with students looking for more and more fine-grained guidance (eg. how many journal articles should I cite?) rather than considering broader analytical issues.

It was also apparent that several students were uneasy about the implications of using the focused feedback option, believing it could actually disadvantage them (or others):

> *I may lose points as they will notice faults, notice where I'm less confident (Student 4)*
>
> *It feels like you are admitting that you are bad at an area and you don't really want to do that when you are handing it in. (Student 4)*
>
> *it might draw markers attention to something they hadn't noticed before, or it might give some people an unfair advantage I guess…[marker] might just be a little bit more sympathetic to them (Student 5).*

One student also reported on being "accused" by her marker of not actually having read an article she cited (because it was not from one of the mainstream journals). In this case the student had the initiative to do extra research and had been stung by this lack of trust, which in turn affected her attitudes towards some markers. Another student said he felt the marker's comment was a sort of "put down":

> *someone who marked one of my essays who was in a high place…it was, not rude, but it is very difficult to explain, but it wasn't helpful saying it like that (Student 4).*

Students thought that pointing out possible weaknesses in their coursework could disadvantage them (a belief reinforced by the reaction of two of the markers on the third year course – as outlined above). Even outside the summative assessment situation students can feel that they should not alert markers to any questions or problems they have (McArthur & McCune, Forthcoming). We suggest that such feelings may understandably be more acute when actually submitting work for summative assessment. As one student commented:

> *going to lecturers was a sort of last resort thing (Student 6).*

These impressions touch on important issues of trust in the assessment and feedback relationship that affect the ability to practise feedback as dialogue. Building on the work of Giddens (1990), Carless (2009) argues that staff are unlikely to take risks in low-trust environments. We suggest that this is equally true for students, and that engaging in focused feedback can be perceived as "risky" from the student perspective. In addition, Carless (2009) also argues that trust is "salient" to formative

feedback:

> *For formative feedback to flourish it is necessary for students to be willing to reveal their own partial conceptions: in other words to invest trust in the teacher (p. 82).*

There are a number of foundations for such trust, including shared expectations – which was sadly missing in the third year course in which we tried focused feedback. However, we do have to acknowledge a strange caveat to this point. In the data gathered at Edinburgh Napier University there is a clear anomaly of one course in which a much higher proportion of students took up this option. Anecdotally, we were told that this particular course has received poor evaluations from students who have been unhappy about the way in which it is taught. The high uptake of the focused feedback option among these students may be an interesting example of students finding ways to adapt to unsatisfactory teaching and learning situations. Thus the issue is not really about focused feedback, but about having spaces for students to be able to take some initiative in the face of unsatisfactory situations.

We also asked students about their general views on the purposes of feedback. Their responses were very forward looking, putting a high emphasis on the contribution feedback can make to future pieces of work:

> *to make your next essays better so that in the final year you will have your maximum potential (Student 2)*

> *so students can improve on what they have and next time make it better (Student 3)*

However, one student questioned this view of feedback, and placed much greater importance on formative feedback while an assignment was being done:

> *I suppose the generic answer [to what is the purpose of feedback] is so that you can better yourself next time but I prefer pre-feedback, feedback on something before it is handed in (Student 4)*

Obviously this is only a very small sample, but all of these perspectives suggest the type of attitudes on which a dialogical approach to feedback could be built. When

asked about the concept of feedback as dialogue one student replied:

> *I think it is a brilliant way, because at the end of the day if you just get something back with a few lines on it then there's huge scope for you to not understand something that's been said, or not to agree with what's been said…I would never just accept something outright that they put down in front of you. If it feels like it clashes with what I believe my work does then it just makes me so indignant that they put that down, so making it more of a dialogue, more open to seeing from his point of view and understanding why I get the marks I get is helpful (Student 5)*

This student went on to provide an example from an essay in which the feedback had focused on the differences between scientific and creative writing. She did understand what the marker meant but said that going and talking with him about it was '*seriously, seriously useful':*

> *hearing it from someone and having a conversation and being able to ask questions about what he means and what he's said means it just goes in easier and I understood it so much better (Student 5*

The students we spoke to also pointed to other important 'moments' for dialogue that are frequently left unfulfilled. In particular, they rarely felt that the lecturers shared with them the criteria for assessment or indeed the general purpose of it within the course as a whole. One student had looked at the learning outcomes and assessment criteria, which she described as finding after searching through the course handbooks. However, she claimed these were never mentioned by course lecturers and she only went looking after a tip from her mother who was a lecturer elsewhere.

However, we also felt that some students confused the idea of a genuine dialogue with a sort of spoon-feeding relationship. It was pleasing that several fiercely asserted the importance of them being independent learners, but unfortunately this sometimes led to a certain sense that it was a weakness to ask for help or to build up a learning relationship with academic staff

> *the feedback needs to be completely impartial and anomymous…[and] the feedback should be purely related to the piece of work handed in, then I can use that feedback either to affirm what I've done before – OK this is fine and it's obviously a good technique or wow this was marked really badly and I won't do this again. It is up to me to use that learning. If they know who we are and if they personalise it … it is kind of like being*

> *back at school again, and you are kind of being taken through by your personal teacher and that as I understood it is not what university is about (Student 5).*

In contrast, another student suggested that the best time for a marker to give feedback would be while they are actually marking the essay; though this was partly because he thought the volume of marking meant that lecturers would confuse individual students who came to discuss their work later.

Initiatives such as feedback therefore need to be placed in a strong context of assessment for learning and our experiences on this project suggest that this cultural shift in understanding the role(s) of assessment still has some way to go.

6. Suggestions for promoting effective moments of dialogue

While it is difficult to directly compare our boot grit and focused feedback case studies as these were carried out in quite different ways, we do suggest that some illuminating insights are revealed by the apparent success of the boot grit initiative and the lack of student engagement with the focused feedback idea.

In summary, we suggest that to be most effective dialogical devices or "moments" need to be introduced into the learning cycle as points that are:

- timely
- enable informed participation
- integrated into a wider dialogical relationship
- appropriate to the teaching and learning context
- built on relationships of trust.

Timeliness

The boot grit feedback example allowed for very timely moments of dialogical feedback, particularly as it was suited to easy adaptation to different circumstances (eg. first lecture, general feedback, particular initiatives). Most importantly, students could ask questions almost immediately that they had them and know that they would

receive prompt replies. There was also sufficient "space" at the end of lectures for students to phrase the sort of questions appropriate to ask. This does not appear to be the case with focused feedback prior to submission of a major piece of coursework. Adaptations to the focused feedback idea could possibly overcome this; for example, using it more in contexts of small and/or formative pieces of work.

Informed participation

We suggest that the relatively low risk and regular nature of boot grit feedback enabled students to build up an understanding of this dialogical moment that enabled fuller, ongoing participation. In contrast, focused feedback was introduced at just one moment, and this also a moment of high stress. We believe that the significance of boot grit being within a purely formative setting and focused feedback introduced at a moment of high stakes summative assessment should not be underestimated, particularly when considering their relative success.

The ongoing and regular nature of the boot grit, and the importance placed on introducing it from the very first lecture, also allowed students to learn experientially what was involved: students could see the sort of questions asked by their peers. For focused feedback to be successful we suggest that more opportunities for students to learn about self-assessing their work, diagnosing problems and interacting in the assessment process would be needed.

In addition, students told us that at the time of submitting their assignments they simply did not know what to ask: they had given it their best shot within the time constraints and so forth and at that point the dialogical moment passes to the marker. After that, on the basis of the marker's feedback, students did say that they would find it useful to engage in further dialogue – but they needed the information from the marker first for that to be meaningful.

Integration into a wider dialogic relationship

On practical level there was a major difference between how we tried boot grit feedback and how we tried focused feedback. The former was studied only in the

context of one lecturer's courses (who was a member of this project team). As a result the overall teaching style was consistent and one that as a project we knew well. For example, this lecturer was already very committed to breaking down the format of traditional "delivery" lectures and to increasing interactivity and dialogue (both within and outside lectures). Boot grit feedback, therefore, was one device within a much more general and committed dialogical approach to teaching.

In contrast, we looked at focused feedback across a wider range of lecturer's courses and our study of it was far more disarticulated from particular understandings of individual teaching philosophies and approaches. It is clear to us now that trying to "parachute in" focused feedback in this way is unlikely to be effective.

Appropriateness

Boot grit feedback works best in large lecture situations in which other forms of dialogue are difficult. This became apparent when we tried to use it as part of small group field work; here the initiative did no harm, but did not really fulfil the idea of what boot grit feedback is meant to achieve. We had thought that focused feedback would also have particular usefulness in large courses where intensive marking loads can make it difficult for lecturers to consistently give personalised and specific feedback. By allowing the student to decide on the focus of the feedback, we hoped to achieve a form of feedback that was both personal and do-able for large numbers. However, we underestimated how such large numbers would also work against the introduction and understanding of such a dialogue moment. We also did not fully consider the implications of large marking teams, not all of which were equally involved in the course or equally experienced (eg. a mixture of postgraduate teaching assistants and lecturers).

Trust

In the case of boot grit feedback issues of trust were less acute because all questions were anonymous and there was no relationship to summative assessment. However, it was also a situation in which trust could be built as the initiative was phased in over

the entire course and the lecturer was committed to dialogical forms of teaching in general. So there was a general environment and culture of trust that allowed the boot grit initiative to flourish. The lecturer sustained this in important ways too, for example, by speedy responses to all questions asked and by never treating any question or comment as silly or irrelevant (even some of the seemingly irrelevant ones).

In contrast the anonymity of the marking system where focused feedback was tried led some students to be unsure to whom they were addressing their questions – we suggest that this requires a leap of faith that few students would make (or should be expected to make). There were suggestions of certain trust issues in the summative assessment process itself, and particularly students believing that identifying their own possible areas for improvement was a "weakness". Sadly this was confirmed by two markers who had clearly misunderstood the focused feedback initiative.

Trust and shared expectations

We also suggest that an important basis for establishing trust in the feedback relationship is ensuring that students and markers have shared expectations of the purposes of feedback is any given context. Academics' attitudes to feedback did not form part of the focus of this project, however, we now see it as an important issue which will be part of our work emerging from this project. In addition, we have some initial observations that have arisen tangentially from this project to suggest that there is considerable variation in academics' perceptions and approaches to feedback as well as variation between academics' and students' perceptions of the purposes of feedback.

We base this on data originally collected as part of the focused feedback work, the purpose of which was to gauge whether focused feedback added to markers' workloads or not. To this end we sought to get an indication of workload levels by a simple means – counting the number of words of feedback provided under "focused feedback" and comparing this with a sample of other feedback from above and below average assignments. However, as so few students took up the focused feedback option this part of the data became much less useful and relevant to its original

purpose.

Nevertheless an interesting pattern emerged from the data collected at Edinburgh Napier University in the previous project, and we therefore analysed the Edinburgh University data in a similar way. At Edinburgh Napier we found a statistically significant relationship between the marks of students (defined in terms of below or above average) and the amount of feedback given: above average assignments received, on average, less feedback than below average assignments. This poses an interesting question for future work: do markers implicitly see feedback as more about correcting faults than an iterative exercise to enable each student to achieve their potential?

Initial analysis of data from the University of Edinburgh suggests a similar relationship and, beyond the work of this project, we plan to continue to look at this more thoroughly and possibly to extend the study. We also observed such variations in the amount of feedback given by different markers, for the same course, as to suggest quite varied understandings of the purposes of feedback. Of particular interest are levels of variation in marker practices and mismatches between student and academic perceptions of feedback in this context.

This has implications for the possible perceptions of the purposes of feedback – as understood by academic markers and as experienced by students receiving this feedback. We would be interested to build on the work of Ivanič *et al* (2000) who argued that

> the amount of time and detail tutors put into their responses to students' work depends primarily on their values, their beliefs about the nature of university education, about the role of writing in learning, and about the role of their responses in all this. They will have developed particular working practices to support these beliefs. Those tutors who give minimal responses perhaps see the task of reading students' writing as largely administrative, and/or do not consider students to have the sort of role in the academic community which merits engaging in dialogue with them. Those who give a lot of feedback must believe that reading and responding to students' work serves more than just administrative purposes (p. 48).

7. Conclusion

In the appendices attached to this report we outline some practical issues that we suggest should be considered if undertaking either boot grit or focused feedback. The apparent success of the former compared with the latter in our study does not, we argue, mean that focused feedback has no place in the learning cycle. In both cases the success of either depends on the five points outlined above.

8. Project Summary (for dissemination)

This project is premised on a belief in feedback as an ongoing dialogue between students and teachers that is embedded in the core of students' learning experiences. In this project we have looked at two very different examples of 'feedback as dialogue' and used these to develop our understanding of how and when such feedback can be most usefully introduced into different teaching and learning situations.

The first feedback example is situated in regular lectures – and we term this boot grit feedback. This is intended to provide an opportunity for dialogue between students and the lecturer about key concepts that remain unclear at the end of a lecture. The idea is to resolve misunderstandings or knowledge gaps that might not initially seem serious, but if left unresolved could "worry away" at the students' learning in negative way – like a bit of grit in a boot.

The second feedback example is situated in the context of a major piece of coursework. To try to inspire the notion of feedback as dialogue, students are given the opportunity to request feedback on particular aspects of their work when they submit it. Lecturers then pick up the dialogue with each student as they respond to their requests.

The two examples produced very different results: there was a high level of student engagement with the idea of boot grit feedback, however, very few students took up the offer of focused feedback. Looking at the factors that may have influenced students' responses to these two initiatives, we suggest that to be most effective

dialogical devices or "moments" need to be introduced into the learning cycle as points that are:

- timely
- enable informed participation
- integrated into a wider dialogical relationship
- appropriate to the teaching and learning context
- built on relationships of trust.

9. Project Dissemination

Paper to be presented at Assessment in Higher Education Conference, University of Cumbria, 6th July 2011

Chapter by McArthur, J and Huxham, M, "Feedback as Dialogue" accepted for inclusion in forthcoming Merry, S et al (eds) Reconceptualising Feedback in Higher Education, Routledge

"How to" guides for promoting feedback as dialogue: Example 1, Bootgrit, Example 2, Focused Feedback – available from the ESCalate website (and included here as Appendices)

Two proposed journal articles taking different themes associated with this project

10. Project Budget

11. Project Team

Dr Jan McArthur is based in the Institute for Education, Community and Society, Moray House School of Education, University of Edinburgh. Her main research interests are social justice pedagogy and the purposes of higher education. She is particularly interested in exploring these themes at both philosophical levels and as they are manifested in day-to-day teaching practices.

Professor Mark Huxham is a "Professor of Teaching and Research" in the School of Life, Sport and Social Sciences at Edinburgh Napier University. For many years he has actively combined his love of disciplinary research with his love of teaching and a commitment to higher education pedagogy. He has a particular interest in assessment and feedback.

Jenny Hounsell is an experienced researcher in higher education. She has been part of several large research projects and has published in the areas of assessment and feedback, and student diversity. She is currently based in the Institute for Academic Development, University of Edinburgh.

Clive Warsop is an experienced researcher in archaeology and biological sciences,

with a particular interest in forensic entomology and taphonomy. He has also had a long interest, as part of his disciplinary teaching, in the enhancement of teaching, learning and assessment within higher education.

12. Acknowledgements

We wish to give particular thanks to Dr Paul McLaughlin and Professor Graeme Reid, University of Edinburgh.

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Appendix 1

'How to...' Create a Dialogue with students through feedback

Example 1: Boot Grit Feedback

Dr Jan McArthur, University of Edinburgh
Professor Mark Huxham, Edinburgh Napier University
Jenny Hounsell, University of Edinburgh

What do we mean by Dialogical Approaches to Feedback?

There is now a widespread understanding of the social nature of learning, and also of the importance of feedback to successful learning. However, many prevailing feedback practices can still tend to treat feedback as information that is simply passed from marker to student. Instead, we suggest thinking of feedback as part of the ongoing dialogue between student and teacher that underlies the entire learning relationship.

How, though, to actually have genuine dialogue through feedback when so many of the structures and pressure of modern higher education seem to put up barriers to the very idea? Large class sizes, modularisation, standardised practices and unrealistic workloads can all make the idea of feedback as dialogue, however appealing, seem unrealistic.

It is precisely in this context that we offer these two examples to suggest ways of creating dialogue with students through feedback. These examples are not meant to be prescriptive: they will work best adapted, modified and developed within individual contexts. Nor are these examples purely theoretical, they have been developed through our own practice and that of colleagues. Our aim is to share our experiences of what has and has not worked so that other colleagues can build on, and learn from, our attempts at dialogue through feedback.

Further information about our project can be found in our report on the ESCalate website at ?????. This includes the rationale behind our project, how we situate it in the existing literature and some of the challenges we faced undertaking this work.

What is Boot Grit Feedback?

The first feedback example is situated in regular lectures – and we term this boot grit feedback. This is intended to provide an opportunity for dialogue between students and the lecturer about key concepts that remain unclear at the end of a lecture. Students are given the chance to ask confidentially for further information or clarification at the end of class, to which the lecturer responds promptly. The idea is to resolve misunderstandings or knowledge gaps that might not initially seem serious, but if left unresolved could "worry away" at the students' learning in a negative way, causing 'academic blisters' – like a bit of grit in a boot.

Boot grit feedback is particularly recommended as a way of promoting dialogue in situations that traditionally do not lend themselves to such approaches – such as large lecture classes.

Our Experience with Boot Grit Feedback

Our first attempts to introduce boot grit feedback to lectures were approached in a fairly literal way: an old boot brought in and the concept explained to students. At the end of each lecture they could ask for clarification about any concepts from the lecture that remained unclear or other questions that were puzzling them by rapidly writing down any topics that they failed to understand, definitions they had missed, calculations that had baffled them etc onto a scrap of paper; they then submitted these slips of paper into the 'boot grit box'. The lecturer would then post answers for all students on the virtual learning environment a short time (certainly within the same day) after the lecture.

Here are some examples of boot grit feedback requested in a biological sciences course:

Half life calculation thing? Very confusing!	Fixzation thing	Disruptive selection – how it works
Sickle cell anemia	Clines (explain more) please!	Can parasites themselves become hosts to other parasites?

The little "prop" of the old boot served to amuse and interest the students and, we suggest, helped to ease the introduction of something new and unfamiliar to the lectures. In subsequent modules a sheet was also included in the module handbook featuring a series of little boot images – which students could tear out and use in each lecture. It proved to be a useful way of integrating the idea of boot grit into the students' experiences of the course. We believed it reinforced the idea of establishing on-going dialogues rather than just a one-off novelty.

Subsequently we tried a high tech version of boot grit using text walls for short windows in lectures. Students were able to text questions which would be displayed on the lecture screen. This offers something slightly different than the boot and paper version as the lecturer can respond immediately.

We also varied the boot grit idea in other ways. For example, around lecture four we asked for general course feedback – to help the lecturer clear the grit from her/his boot. This gave the lecturer a chance to modify practices and respond to student concerns (eg certain students dominating discussions) before these festered and seriously detracted from the learning environment. We used boot grit to elicit feedback on a particular initiative (in this case formative peer assessment) to judge whether the task had achieved its aims. The only adaptation that didn't really work was trying to integrate boot grit in students' fieldwork reflective diaries. While students noted some interesting things about their experiences, it didn't work as boot grit (which is designed to deal with immediate, discrete and relatively small issues). We think this is because the personal and informal nature of the fieldwork trip allowed other effective forms of dialogue – unlike large, time-constrained lectures.

What students told us

We were delighted by students' responses to the idea of boot grit feedback. They grasped the concept very quickly and asked appropriate, very specific questions. The concept would not work if their questions were vague and unfocused. We have been pleased to observe that "boot grit" has become part of the vocabulary of students within this School. Other lecturers report students asking for boot grit feedback and the practice has been taken up by some colleagues.

Students found it helpful to know that they were not alone in struggling to grasp certain concepts. Although all boot grit is anonymous, when posting answers to student questions we always included the number of people who had asked a certain thing. This was an easy form of reassurance and, we believe, could encourage students to keep asking questions – keep up the dialogue.

Students liked the option of asking questions anonymously and at the end of the lecture. Some noted that they were uncomfortable speaking in front of large numbers of their peers and thus asking questions in the lecture (this could be exacerbated by the confidence of some students who did find it easy to speak up in lectures). Thus many students seemed to find that boot grit offered opportunities for a more diverse range of students.

Students perceived boot grit as part of a more general interactive, participative style in lectures which most also appreciated.

Students liked to get answers to their questions! We felt that students really liked being in dialogue with the lecturer in this way, despite all the constraints of very large lectures.

Key points to consider – Boot Grit Feedback

It is particularly suited to teaching situations in which dialogue would normally be difficult: the boot grit concept works best in large lecture situations where dialogue between lecturer and individual students is not always easy. It is probably a distraction to use it in smaller teaching situations where other forms of dialogue are better suited.

It should be part of an overall dialogical approach: there is not point encouraging students to ask boot grit questions at the end of the lecture if the entire lecture has been a monologue in which students are simply given parcels of information. We believe that one of the keys to our success with boot grit has been approaching all lectures as places in which students and lecturers can interact with interesting ideas and challenging knowledge. Boot grit, like any other initiative, cannot stand in isolation.

Try to incorporate it into the weft and weave of the course: little things like including some reference to boot grit in the course handbook – or little tear out images of boots as we did to prompt students' questions – are very important. Similarly, encourage boot grit from the very first lecture – encourage everyone to give it a go and then they are more likely to use it when needed over the rest of the course. Boot grit must be integrated into students' experiences of the course so that they understand it in terms of establishing on-going dialogues rather than just a one-off novelty.

It must be timely: the worst thing that a lecturer can do is to ask for boot grit feedback and then not to answer it in a timely way. We did not find that boot grit imposed a great additional workload; crucially although there might have been 120 students in a lecture there were not 120 different issues raised, rather the overwhelming majority of submissions usually referred to just one or two points in a lecture that students had found difficult. Hence boot grit can make preparing the next lecture much easier if you know what students have not understood in the previous one – and you act to rectify that. However, anyone wishing to introduce boot grit does need to ensure there is a small window set aside to post timely answers.

For more information: please contact Dr Jan McArthur, Institute for Education, Community and Society, Moray House School of Education, University of Edinburgh, jan.mcarthur@ed.ac.uk

Appendix 2

'How to...' Create a Dialogue with students through feedback

Example 2: Focused Feedback

Dr Jan McArthur, University of Edinburgh
Professor Mark Huxham, Edinburgh Napier University
Jenny Hounsell, University of Edinburgh

What do we mean by Dialogical Approaches to Feedback?

There is now a widespread understanding of the social nature of learning, and also of the importance of feedback to successful learning. However, many prevailing feedback practices can still tend to treat feedback as information that is simply passed from marker to student. Instead, we suggest thinking of feedback as part of the ongoing dialogue between student and teacher that underlies the entire learning relationship.

How, though, to actually have genuine dialogue through feedback when so many of the structures and pressure of modern higher education seem to put up barriers to the very idea? Large class sizes, modularisation, standardised practices and unrealistic workloads can all make the idea of feedback as dialogue, however appealing, seem unrealistic.

It is precisely in this context that we offer these two examples to suggest ways of creating dialogue with students through feedback. These examples are not meant to be prescriptive: they will work best adapted, modified and developed within individual contexts. Nor are these examples purely theoretical, they have been developed through our own practice and that of colleagues. Our aim is to share our experiences of what has and has not worked so that other colleagues can build on, and learn from, our attempts at dialogue through feedback.

Further information about our project can be found in our report on the ESCalate website at ?????. This includes the rationale behind our project, how we situate it in the existing literature and some of the challenges we faced undertaking this work.

What is Focused Feedback?

The second feedback example is situated in the context of a major piece of coursework. To try to inspire the notion of feedback as dialogue, students are given the opportunity to request feedback on particular aspects of their work when they submit it. Lecturers then pick up the dialogue with each student as they respond to their requests.

Typically dialogue would be initiated by adding a section to the assignment hand-in sheet to be completed by students. This would provide space for students to respond to a request along the lines of - Are there any particular aspects of your work you would like feedback on?

Our Experience with Focused Feedback

Our initial attempts to introduce focused feedback to encourage a dialogical relationship with students have been … less than successful! This obviously begs the questions, why write a "how to" paper on it and why should anyone else try to use it? Despite our initial set-backs and disappointments we still believe that focused feedback can be a useful dialogical device in certain circumstances and/or for

certain students.

We have now offered the focused feedback option to students at two very different universities (modern and ancient) across a range of courses. In all but one case take-up was very low in these courses. We were also disappointed that some requests were fairly procedural (eg. "What is the Harvard referencing system?") rather than particular to the students' own work. However, this was not always the case, and some students made very thoughtful requests that indicated a strong sense of their own self-assessment of their work. Unfortunately, in some of these cases not all markers responded in kind, and the dialogue could then flounder for that reason.

It became clear to us that for this sort of initiative to work it requires much more integration into the course than is afforded by simply amending the coursework cover sheet. The key "how to" points below are based on this and other experiences from our use of focused feedback to encourage greater dialogue with our students.

What students told us

Very few students that we spoke with were actually against the idea of focused feedback, however, the vast majority thought it might be useful for "other" students but not for them.

Students were keen that feedback take a more dialogical form, but pointed to other "moments" where this might be more useful and/or better achieved. For example, they were keen on greater formative feedback while they were undertaking coursework. Several students also liked the idea of being able to engage the marker in dialogue *after* they had their coursework and feedback returned.

Students noted that when they are just about to submit an assignment they are often very busy, highly pressured and even quite stressed. Thus, this may not always be the best time to sit and contemplate what sort of "focused feedback" to request. Even those who were aware of the option, and quite liked the sound of it, could simply forget about it in the rush to get their coursework in on time.

Some students felt that they did not have the expertise or knowledge to be able to request particular feedback. They said some further guidance would be useful. One student suggested that a tick box option (I'd like feedback on my introduction, references, argument, conclusion etc.) could provide some useful structure to help students think about what to request.

On a general point, students talked about feedback in terms of future improvement, confidence building, a sense of achievement and recognition for their work. Most, however, reported that feedback practices within their subject area could be highly variable.

Key points to consider – Focused Feedback

One question does not make a dialogue: to be effective focused feedback needs to be offered within a course context that is already open to the idea of a dialogical relationship between students and lecturers.

Students like to ask informed questions: students are reluctant to ask for focused feedback when they are not experienced at reflecting on their own work, in partnership with lecturers, and making their own self-assessments and diagnoses of problems. Of course there is a chicken and egg element to whether these or focused feedback need to come first. Our point is that focused feedback needs to be linked to enabling students to develop the skills to start to evaluate their own work.

Students also have heavy workloads: focused feedback has a greater chance of achieving its aims if it can be introduced for coursework that is not due during particularly heavy assessment times.

Many students now find that deadlines for their coursework from different courses are bunched into one or two weeks. At these times of competing deadlines, focused feedback is unlikely to get many takers. It is also likely to be more effective if students are told in advance that they will be asked to request focused feedback – ideally they may then develop a sense of what they want to ask as they do the assessment task.

Focused feedback need not add to markers workloads: some reassuring news – we looked specifically to see whether focused feedback led to markers having to do a lot of extra feedback. We did not find, albeit in a small sample, that this was the case. Indeed, if the marker enters into this dialogue with the student as she/he marks it can make the marking process more efficient. It is also nice to add feedback that one can be fairly sure the student will read – and maybe even use!

The whole course team needs to be involved: we under-estimated how much guidance colleagues would need to respond to the focused feedback. This became particularly apparent in large courses and/or where there are several markers on the course team. We would stress that it is very important that if we invite students into a dialogue through focused feedback that they receive a positive and helpful response (though as stated above, this need not be more time consuming). It became apparent that some markers had deeply entrenched perceptions that it was inappropriate for students to highlight their own weaknesses or doubts when submitting an assignment.

Trust needs to be built: in line with the last point above, many students were also uncomfortable, even suspicious, about telling markers what may be wrong with their assignments, or even showing signs of weakness or doubt. This is understandable, but quite sad and unhelpful from a learning perspective. Again, focused feedback will be more successful if time is spent explaining its purposes to students and building trust. Indeed this dialogical device itself needs to be introduced through a dialogue.

For more information: please contact Dr Jan McArthur, Institute for Education, Community and Society, Moray House School of Education, University of Edinburgh, jan.mcarthur@ed.ac.uk